

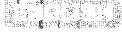
Technitron®



**GRAPHIC EQUALIZER
SPECTRUM ANALYZER**

Handbook of Instruction

Model EQ551



Warranty

For warranty information, contact your local Marantz distributor.

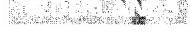
Retain your purchase receipt

Your purchase receipt is your permanent record of a valuable purchase. It should be kept in a safe place to be referred to as necessary for insurance purposes or when corresponding with Marantz.

Important

When seeking warranty service, it is the responsibility of the consumer to establish proof and date of purchase. (Your purchase receipt or invoice is adequate for such proof).

For UK only: This undertaking is in addition to a consumer's statutory rights and does not affect those rights in any way.



Garantie

Voor garantie kunt U zich tot uw lokale Marantz dealer wenden.

Bewaar uw kassabon

De kassabon is uw bewijs van een waardevolle aankoop. Het dient op een veilige plaats bewaard te worden, zodat U eraan kunt verwijzen bij verzekerkwesties of correspondentie met Marantz.

Belangrijk

Het overleggen van de aankoopbon kan belangrijk zijn wanneer U gebruik moet maken van de garantie - of service dienst.



Garantia

Para informacion sobre la garantia consulte a su distribuidor Marantz.



Garanti

För upplysningar angående garanti, vänd dig till din lokala Marantz-distributör.

Behåll ditt inköpskvitto

Inköpssvitot är ditt bevis på ett värdefullt inköp. Det bör förvaras säkert för att kunna användas som referens vid garantiservice är det konsumentens ansvar att uppvisa på inköp och inköpsdatum. (Inköpssvitto eller faktura gäller som sådant bevis).



Garanzia

Se desiderate informazioni relative alle condizioni di garanzia contattate la Marantz Italiana S.p.A. — Via Monte Napoleone 10-20121 Milano.



Takuu

Jälleenmyyjä antaa tarkemmat tiedot takuuuehdoista.

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ENGLISH : This unit meets the requirements of EEC Recommendation 82/499.

FRENCH : Cet appareil est conforme à la recommandation CEE 82/499.

SPANISH : Este aparato esta conforme a los requerimientos de la Norma 82/499 de la CEE.

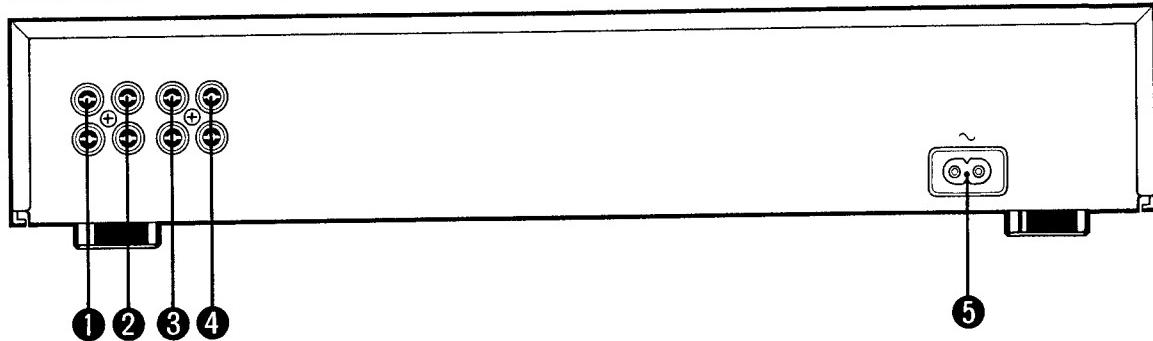
GERMAN : Dieses Gerät entspricht den Anforderungen der EWG Richtlinien 82/499.

DUTCH : Dit apparaat voldoet aan de in EEG publikatie 82/499 gestelde eisen.

ITALIAN : Questo apparecchio è conforme alla direttiva CEE 82/499.

SWEDISH : Enheten möter kraven av EG rekommendation 82/499.

Model EQ551 (N version)



Model EQ551 (E version)

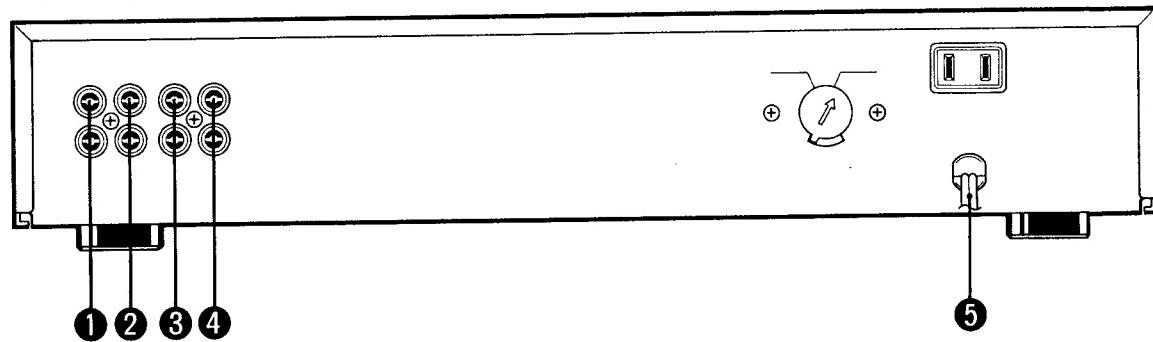


Figure 1. Rear Panel
Figure 1. Panneau Arrière
Abbildung 1. Gerätérückseite
Afbeelding 1. Achterzijde

Figura 1. Panel posterior
Figure 1. Bak panel
Figura 1. Pannello posteriore
Kuva 1. Takasinämä

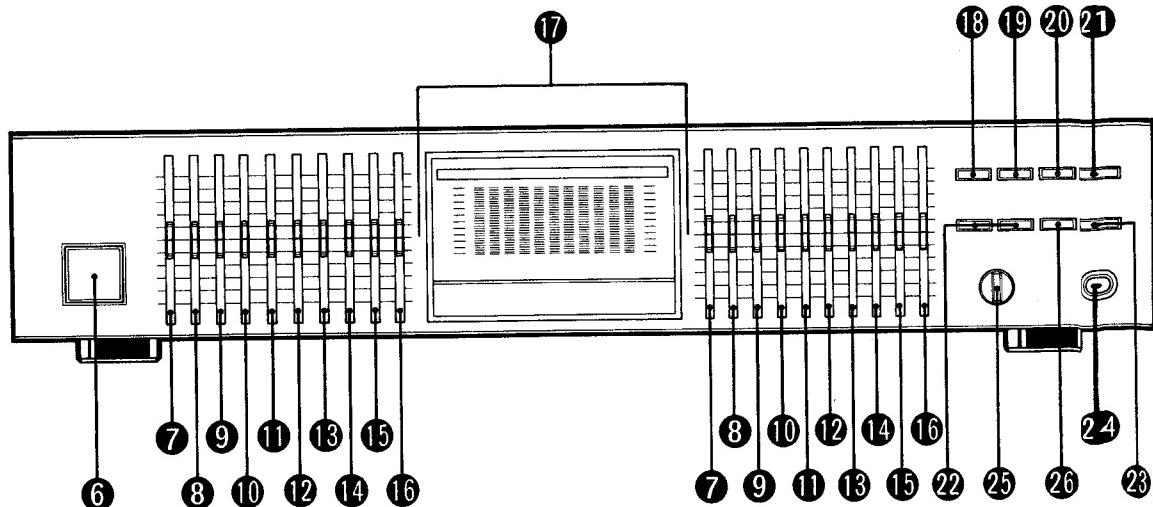


Figure 2. Front Panel
Figure 2. Face avant
Abbildung 2. Gerätevorderseite
Afbeelding 2. Voorzijde

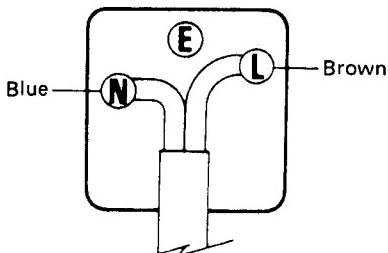
Figura 2. Panel frontal
Figure 2. Front panel
Figura 2. Pannello frontale
Kuva 2. Etuasinämä

FOREWORD

Your Marantz product has been specially prepared to comply with the household power and safety requirements that exist in your region. This product has a 2-position voltage selector (110–120/220–240V) on the rear panel (E version). Since the voltage has been adjusted as shown below upon shipment from the factory, please check the third alphabetical letter of the serial number and refer to the following table to note the characteristics of the model in your possession:

SUFFIX	VOLTAGE
A –	240V AC, 50/60 Hz
C –	120V AC, 60 Hz
U –	120V AC, 60 Hz
N –	220V AC, 50/60 Hz
T –	240V AC, 50/60 Hz
E –	220–240V AC, 50/60 Hz

FOR UNITS SOLD IN THE UNITED KINGDOM



IMPORTANT

The wires in the mains lead are colored in accordance with the following code:

- Blue — Neutral
- Brown — Live

As the colors of the wires may not correspond with the terminal identification in your plug, proceed as follows:

- Connect the brown wire to the terminal marked "L" or colored brown or red.
- Connect the blue wire to the terminal marked "N" or colored blue or black.

For 13A plugs, conforming to BS1363, use a 3A fuse.

For other plugs, use a 5A or lower fuse in the plug or adaptor or at the distribution board.

NOTE FOR U.K.

Recording and playback of any material may require consent. For information, please refer to the:

- Copyright Act 1956
- Dramatic & Musical Performers Act 1958
- Performers Protection Acts 1963 & 1972
- and to any subsequent statutory enactments and orders.

ABOUT THIS MANUAL

Refer to the figures given on page 1. The callout numbers correspond to those found in this manual. All references to the connections and controls are printed in **BOLDFACE** type as they appear on the unit.

REAR PANEL CONNECTIONS

All connections to the rear panel should be made with the power to the entire system turned off. To avoid confusion, connect one cable at a time between the different components of your system. This is the safest way to avoid cross-connecting channels or confusing signal inputs with outputs.

① LINE IN

Connect these terminals to the pre-amplifier or premain amplifier REC OUT terminals.

② LINE OUT

Connect these terminals to the pre-amplifier or premain amplifier TAPE IN terminals.

③ TAPE IN

Connect these terminals to the tape recorder line output terminals.

④ TAPE OUT

Connect these terminals to the tape recorder line input terminals.

⑤ AC POWER CONNECTION

Connect the included power cord here. The EQ551 can be used with either AC 220V or AC 240V power sources.

FRONT PANEL FEATURES

⑥ POWER SWITCH

Press this switch to turn on the power.
Press again to turn the power off.

⑦ 31.5 Hz EQ CONTROLS

Lowering this control will reduce deep bass noise, such as motor rumble. Raising these controls will increase deep bass sound.

⑧ 63 Hz EQ CONTROLS

Lowering this control will reduce air conditioner line noise, hum noise from electrical instruments and booming of bass sound to make the sound clear. Raise these controls to enhance the heavy bass sound, such as bass or pipe organ.

⑨ 125 Hz EQ CONTROLS

Controls the lower bass sound. Use this control to increase or decrease the bass sound which is fundamental to the music.

⑩ 250 Hz EQ CONTROLS

Controls the mid bass sound which gives the music its "dynamism".

⑪ 500 Hz EQ CONTROLS

This frequency band contains instruments, basic harmonics and the human voice. Raising this control will increase strength, richness and warmth.

⑫ 1 kHz EQ CONTROLS

Controls the presence and definition of the sound; enhances a solo voice.

⑬ 2 kHz EQ CONTROLS

Enhances the sibilance of vocals.

⑭ 4 kHz EQ CONTROLS

Controls harsh and edgy sound. Raising this control will enhance the brightness of brass.

⑮ 8 kHz EQ CONTROLS

Controls the brightness of the sound. Raising this control will increase the distinctive harmonics of string instruments.

⑯ 16 kHz EQ CONTROLS

Affects not sound but atmosphere. Raising this control will increase the delicacy of the instruments.

⑰ SPECTRUM ANALYZER DISPLAY

This display is a bar graph consisting of 11 bars, which beginning from the left indicate the strength of the frequency components corresponding to controls ⑦ through ⑯. The bar at the far right indicates the total level, with no relationship to frequency.

⑱ INPUT ATT. SWITCH

The maximum allowable input level for the EQ551 is quite high, but for an even higher input level, press this switch for sound with no distortion up to an input level of 10V. This switch functions regardless of the position of the **EQ REC ON/OFF** switch ⑳.

⑲ EQ ON/OFF SWITCH

When this switch is in the **OFF** position, the signals from the **LINE IN** terminals ① are output directly to the **LINE OUT** terminals ②. The same is true for the **TAPE IN** and **TAPE OUT** terminals. When in the **ON** position, the signals from the **LINE IN** terminals are equalized and output through the **LINE OUT** terminals.

⑳ EQ REC ON/OFF SWITCH

Set this switch to the **ON** position to record equalized signals onto a tape recorder.

㉑ TAPE MONI. SWITCH (ON/OFF)

This switch is used to monitor the output from a tape recorder.

Use this switch in the **OFF** position to listen to the source (FM, CD, etc.) selected with the amplifier's function switch.

㉒ DISPLAY SWITCHES

This switch is used to select the operation mode of the display.

1. **Both out:** Microphone input level is displayed.
2. **L depressed:** Left channel level is displayed.
3. **R depressed:** Right channel level is displayed.
4. **Both depressed:** Total level of left and right channels is displayed.

㉓ PINK NOISE SWITCH

Use this switch when utilising pink noise to compensate the sound field. Pink noise is output from both the left and right channels.

㉔ MICROPHONES JACK (MIC)

Use this jack to connect the included condenser microphone.

㉕ DISPLAY LEVEL CONTROL

Use this control to change the level of the display. When turned clockwise the height of the bar graph is increased.

㉖ DECAY TIME SWITCH

Use this switch to change the speed of the display in two steps.

USAGES

A) NORMAL EQUALIZER USAGE

1. Set the amplifier's **TAPE MONITOR** switch to "**TAPE**".
2. Set the **TAPE MONITOR** switch ㉑ to "**OFF**" or "**ON**".
3. Use the **EQ** controls for the various frequencies to obtain the desired frequency response.

B) RECORDING ONTO A TAPE RECORDER

1. To record without equalizer compensation, set the **EQ REC** switch to the "**OFF**" position.
2. To record with equalizer compensation:
 - a) Following the procedure in A) above, adjust the controls for the different frequencies.
 - b) Set the **EQ REC** switch to the "**ON**" position.

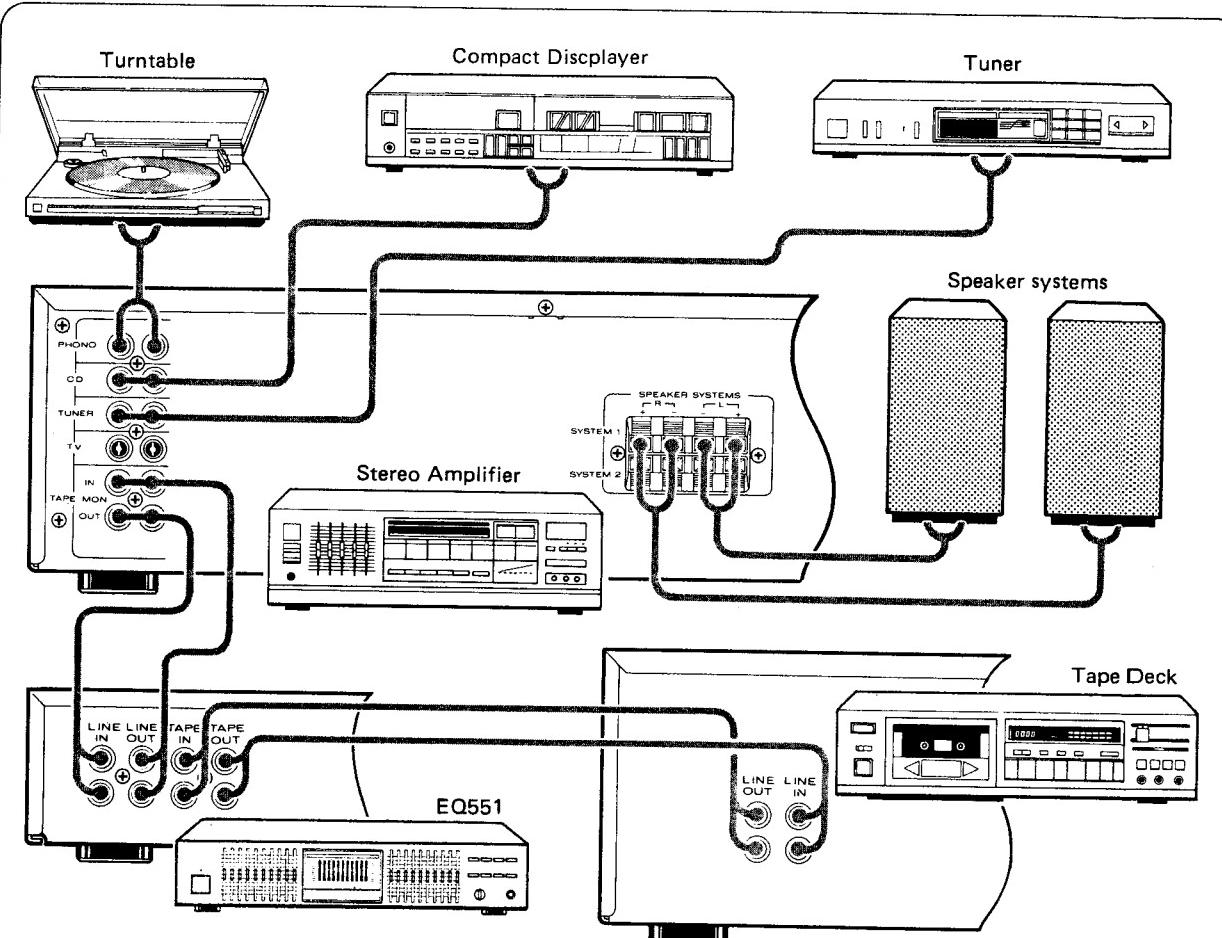
C) COMPENSATION USING THE MICROPHONE

1. Connect the included condenser microphone to the **MIC** jack ㉔. The power for the microphone is supplied by the EQ551.
2. Set the **DISPLAY LEVEL** control to **MAX**.
3. Press the **PINK NOISE** switch and check that pink noise is output from both the left and right speakers.
4. Turn the balance control on the pre-main amplifier to the left side so that sound is only heard from the left speakers.
5. Adjust the volume of the pre-main amplifier so that the display on the spectrum analyzer is not too high. If it is, decrease the amplifier's volume or turn the **DISPLAY LEVEL** control counterclockwise to decrease the sensitivity.
6. Adjust controls ⑦ through ⑯ to the desired level.
7. Once the left channel has been adjusted, turn the balance control to the right side and adjust the right channel in the same way.

SPECTRUM ANALYZER

The audible frequency range, from 20 Hz to 20 kHz, is divided in ten parts. The spectrum analyzer displays the component of each of these frequencies, that is, the distribution of energy among the different frequencies in the music. This energy distribution changes constantly, and the height of the bars on the display vary in function of these changes. There are a total of 11 bars on the graph. The larger bar at the far right indicates the total level, with no relationship to frequency.

When using pink noise to compensate the sound field of the room and all the bars are at the same height, the frequency response is flat.



- Always keep the amplifier's monitor switch at the "TAPE" position.

However, for amplifiers to which two tape recorders can be connected, select the position corresponding to the TAPE jacks being used. For example, when connected to

the TAPE 1 jacks, set the monitor switch to TAPE 1, and when connected to the TAPE 2 jacks, set it to TAPE 2.

MAINTENANCE

REPAIRS

Only the most competent and qualified service technicians should be allowed to service the unit. The Marantz Company and its factory-trained warranty station personnel have the knowledge and special equipment needed for repair and calibration of this precision instrument. In the event of difficulty please refer to your local dealer or write directly to the Marantz Authorized Service Station nearest you. The names and addresses are listed on the back page. Please include the model and serial number of your unit together with a full description of what you feel is abnormal in its behavior.

REPACKING FOR SHIPMENT

Should it become necessary to repack your unit for shipment to the factory, or an authorized service station, or elsewhere, please observe the following precautions:

- Pack the unit carefully, using the original material as shown in Figure 3.
- Ship via a reputable carrier (do not use Parcel Post) and obtain a shipping receipt from the carrier.
- Be sure to include your return address on the shipping label.